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THE STEEPEST PLACES: IN THE CORDILLERA CENTRAL

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$$\frac{4}{c} = \frac{e^{-x/c}c^{-x/c}}{2}$$

is the sine curve that describes Mayon, the stratovolcano whose slopes form the most regular cone in the natural world. (Let $c = 8.6$ millimeters.) It was somewhere to our south, at the tip of the long ribbon of Luzon, glowing at night with a bulb of magma in its mouth. Mayon is the most active volcano in the Philippines. Around its base are densely populated towns whose inhabitants do not frighten easily. The last major eruption, in 1993, killed seventy-nine people and forced nearly a thousand times as many to flee their homes, as lava and mudflows coursed down the mountain's dozens of ravines like puddled steel in a smeltery. It has since erupted in 1999, 2000, 2006, 2009, 2013 (a sudden phreatic explosion that killed four mountain climbers from Europe and their Filipino guide), 2014 and 2018. Mayon smoldered and glowed but did not erupt the season of our arrival in Manila. Taal erupted instead.

We were rooming on a street of flowerpot-lined churches in Poblacion, the old market center of Makati, where one evening the parked jeepneys were discovered coated in silken film. A sign appeared in the hotel lobby: THE ROOF DECK IS CLOSED UNTIL FURTHER NOTICE DUE TO ASHFALL.

Forty miles to the south, fumaroles sent up curtains of white smoke around Taal's caldera that returned to earth as damp, unassuming dust on cafe tables as far north as Quezon City. It was our introduction to a sight that would become routine three months later: a city of masked faces. We went looking for a pair of the recommended N95 face masks. They were sold out everywhere.

The volcanic warning level was raised to four out of a possible five. Carleen looked up the chart on her phone at breakfast. 'Level four means a hazardous eruption is imminent,' she said, using the same tone of voice with which she had earlier pointed out that a museum on our itinerary was closed for the day. The slopes of the caldera were beginning to inflate like earthen lungs as magma pressed up against surface rock. Color photographs around Batangas showed an ash-desaturated landscape, with roads, crops, cars and houses cast fuzzily in monochrome silver. Lapilli – volcanic cinders as large as billiard balls – fell on houses in villages around Taal Lake. The government evacuated 20,000 people, and eventually more than 100,000 were displaced, many of them farmers living off the rich volcanic soil. Left with no caretakers, their livestock began to starve to death.

At least one Luzon resident was not cowed. 'I will eat that ashfall,' President Rodrigo Duterte told the nation. 'I'm even going to pee on Taal, that goddamned volcano.' Duterte is nothing if not quotable. In defense of the drug war that is his administration's signature platform, and in which tens of thousands have died, he has compared himself favorably to Adolf Hitler and his slaughtering of drug addicts to the Nazi persecution of Jews. During his 2016 presidential campaign – unofficial slogan: 'Kill the criminals!' – Duterte boasted that, once he was elected, funeral parlors would be overwhelmed by business and the fish in Manila Bay would grow fat on the flesh of 100,000 Filipino corpses. He has since enjoined citizens to murder their drug-addicted relatives and declared his support for gangs and corrupt officials who target journalists, Indigenous leaders and human rights activists, many of whom are 'red-tagged' by government forces as violent communists ahead of their summary execution.

At particular risk are land and resource defenders, who have become frequent targets of extrajudicial killings by soldiers, paramilitaries and lone gunmen on motorbikes; in 2018, more such killings took place in the Philippines than anywhere else in the world. Duterte has boasted gleefully of having cultivated this atmosphere of impunity, promising to use his powers to pardon any soldier or police officer accused of human rights abuses, and assuring supporters that, if anyone ever attempts to bring him to legal account for his role in all this mass murder, he will pardon himself.

In the mountains, however, Duterte seemed to have met his match. Not even the president could stop a volcanic eruption, or prevent one from opening a dramatic caesura in the churning chaos of consumption and growth that powers the country's airports, dams and offshore drilling. Schools and businesses shut down; all flights at Ninoy Aquino were grounded. Against a darkening rim of sky, Duterte's flamboyant rage felt thin.

A friend in Quezon City sent me a text message: 'You've arrived in disaster season!' There were earthquakes and a polio outbreak in Mindanao, plus a novel virus in China that seemed at risk of spreading to other countries in Asia. Manila's notorious traffic, second only to Moscow in its average commute times and rococo fleurs of gridlock, all but disappeared as many of the city's transplants fled home. Carleen and I left, too. We turned away from Taal and the southern volcanic chain, heading north, toward mountains that for centuries have protected and enclosed.

In the beginning, the sky was low. You could touch it with a spear or long pole. How the sky became high is a story repeated with slight variations across the Philippines, but the story of the origin of mountains can be traced to northern Luzon. According to the corpus of myths told among Ifugao people in the Cordillera, one day, Kabigat of the skyworld descended to the earth to hunt with his dogs. The dogs ran swiftly from one side of the level world to the other in pursuit of their quarry. Because the dogs' barking returned no echo,

Kabigat determined the earth must be completely flat. The silence made him pensive. He returned to the skyworld and came down with a large cloth to stop up the place where the waters entered the sea. Back home, he announced what he'd done. Bongabong ordered him to call on Cloud and Fog to produce rain. Kabigat did as he was told. After the rain, he removed the cloth. The waters, which now covered the earth, receded, and in their rushing carved mountains and valleys out of the land. The mountains rose up as the waters drained into the sea.

It is no longer true that history begins with the scribes of the state. For at least two centuries, history has commenced with the geological survey. When a modern empire sets its eyes on an attractive object of conquest, it sends not priests or poets but surveyors and engineers. Thus was Warren D. Smith, the Chief of Division of Mines in the Bureau of Science of US-governed Manila, tasked to produce the first modern geological report on Luzon, a still-recent American acquisition in 1913, in order to inform prospectors of any bonanza quantities of coal, iron, oil, copper or gold, and to assure speculators that 'the people who inhabit those sections give very little promise of ever being able to take advantage of the mineral resources.'

Luzon is the largest island in the Philippines. The Cordillera Central is its largest mountainous expanse, a massive block of three ranges shoved indiscernibly together with no intervening lowlands: the Malayan in the north and west, the Polis in the east and the Central between them. The mountains run north to south for 200 miles, a sixth of the island's length and large enough to block cyclones and monsoons; the foothills descend steadily to the outer edges of Metro Manila but with great winding sinuosities in all directions. Like movements in a geological symphony, each range is distinct in structure, composition and tone. Although there are coastal plains north of the Lingayen Gulf, where they have served as narrow purchase for traders from Taiwan and the first colonizers from Spain, elsewhere the young mountains appear to plunge, pine-covered and villageful, directly into the two underwater trenches whose catacombs

hold all of Luzon's shipwrecked galleons and coral life. In place of beachheads, rock rises in frozen effigy of eruption. 'The mountains are nearly everywhere close to the sea,' Smith observed.

Until the arrival of American soldiers and the rise of regional bureaucracy, the people living in these mountains called themselves by the names of their villages and towns, not their provinces or tribes; there was certainly no name in local circulation for all of the peoples living in the great Cordilleran universe. It was the Spanish who called them Ygolote, probably from the moment of their arrival. They are Ygolotes in the 1576 report of the first expedition in search of the legendary gold mines of Luzon. One etymology holds that *golot* once meant mountain chain, and so Igorot might be understood to mean people of the mountains or, simply, highlanders. Whatever its origins, Americans adopted and codified the term, often pejoratively. Although he marveled over the natural landscape and over such oddities as Mayon's algebraic perfection, Smith had nothing complimentary to say about his country's new colonial subjects. He complained of the almost total lack of roads throughout the Cordillera, excepting 'a great many Igorot trails which do not take any advantage whatever of the topography'. (Strategically important trails were no doubt deliberately hidden from early Americans, as they had been from the Spanish.) Luckily, Smith went on, the government was in the process of putting in an automobile road, which he claimed was the source of better feeling between the 'primitive' northern tribes and the American-controlled government. 'As soon as the railroad and the school have had a chance to work on these people and mix them up, the tribal characteristics will largely disappear.'

Today, some Cordillerans reject the term Igorot as derivative of colonialist thinking, lumping dozens of societies into a single exonym, but it is still widely used by those to whom it has historically applied, often preceded by the name of a specific ethnolinguistic group, tribe or clan: for example, the Kankana-ey Igorot people. It is part of a large class of names by which lowlanders around the world refer to those recalcitrant and irreducibly different people living in the hills beyond

the urban cores of the state. The name recalls the crowded procession of frustrated Spanish gold hunters who visited Luzon's mountain towns, each of whom found their hosts irritatingly unwilling to be converted or colonized. Unlike many of the peoples living in the lowlands of Luzon and the Visayas, Igorots were never made slaves of the Spanish, and while some were converted to Christianity – 'reduced' in the language of the missionaries – as large a number are thought to have escaped in the other direction, into the hills, where they preserved their independence for three centuries in societies of state-thwarting dissimulation. The last Spanish census, recorded during the death throes of the regime, suggests that more than half of the non-Christian population of the Cordilleras was still living beyond the reach of tax collectors. Even those under nominal Spanish control often refused to pay tribute or move into the friars' parishes. The instructions left in 1892 by a departing governor general in Ifugao tell a story of resignation and defeat, reminding the commandant who would replace him 'that he will be exercising his authority over pagans who do not know the benefits of good government and who, even when they do, may in many cases prefer the savage independence in which they have lived and have seen their ancestors live'.

At the start of the twentieth century, US troops arrived to crush the newly sovereign Philippine government. It was the Spanish–American War's most brutal and superfluous front, Spain having already lost its islands squarely to their inhabitants. That Filipino people could not be allowed to govern themselves was widely accepted among the American ruling class. 'They are not capable of self-government,' Senator Albert J. Beveridge said on the floor of the US Senate in January 1900. 'How could they be? They are not of a self-governing race.' As he was the only congressman who had visited the country, Beveridge's comments carried serious weight as the ongoing war and possible colonization were discussed. He had 'cruised more than 2,000 miles through the archipelago', he said, finding every foot of the way a revelation in vegetation and mineral riches, particularly on its largest island. 'No land in America surpasses in fertility the plains

and valleys of Luzon. Rice and coffee, sugar and coconuts, hemp and tobacco . . . The wood of the Philippines can supply the furniture of the world for a century to come.' As for the people living among this earthly bounty, it would be better to abandon them to some Pacific kingdom than to permit them to determine their own fates. To colonize them would be better still. It was 'the divine mission of America, and it holds for us all the profit, all the glory, and all the happiness possible to man'.

The bus made stops all along the road to Baguio City and raced between towns to make up for lost time. Above the driver's head was an electronic counter like those found at butcher shops. Instead of ticket numbers, it displayed the bus's speed. When the driver crossed the threshold of 91 kilometers per hour, the counter beeped loudly. In response, he slowed down to a more reasonable 89 or 90 or 90.9. The bus was quiet as we all watched the driver creep up toward the limit, inevitably pass it, triggering the alarm, and slow down again. It was a form of democratic surveillance I couldn't imagine encountering at home in Germany, where no bus company would ever publicize its lawbreaking to customers, and where authority is something simply to be obeyed, never examined or bargained with. Whereas here it seemed normal for any passenger to observe and comment on the speed, as some passengers near the front of the bus did, chastising the driver for going either recklessly fast or, just as often, not fast enough.

At the start of our ascent, we passed worked fields and roadside shacks. There were acres of monocropped corn and rice and distant hills pronged with antennae. The bus parked for fifteen minutes at a rest stop in Sison and passengers fell upon the kiosk selling duck eggs out of a bifurcated glass case, both the soupy unfertilized *penoy* and the crunchy, fertilized *balat*. From Sison, the road narrowed and began to rise into the hills, passing through the walls of white mist that hang over the peaks of the Pangasinan spur and never lift. The hills are the true start of the Cordillera and of what early visitors sometimes

called Igorotland. Metro Manila's exurban visions of privation disappeared and were replaced by small, thriving towns. Handsome schools stood behind new iron gates; town squares were set off by blossoming trees and whitewashed apartment buildings. Roadside sari-sari stores were cornucopian with dry goods, each modest stall painted blue and named for its female proprietor: Myrna's Store, Sany's Store, Edith's Store. In Pugo, the Tinungbo festival shut down traffic for twenty minutes. Nobody honked or complained. Cars waited patiently for the drummers and flagbearers to finish marching through town along the only road. We watched from our windows and waved the marchers on.

Baguio City's province, Benguet, is the traditional entrepôt for the Cordillera. A slab of andesitic rock veined with mineral fissures, Benguet is the final plateau before the peaks begin in earnest. Above it rise the mountains Pulo, Tabayoc, Panutoan, Osdung, Paoay, Ugu and, most spectacularly, Data, where the headwaters of four of Luzon's great rivers are found in outcroppings within a few miles of each other. We crawled through winding two-lane roads in heavy afternoon traffic, beneath billboards featuring giant plates of American Spam. Throughout Benguet's history, gold was freely mined in tunnels and pits, and panned along the rivers in the rainy season, concentrated in the so-called Baguio Gold District. The Spanish focused some of their earliest extractive efforts here. Benguet was also the site from which the US Army made incursions to slaughter rebels and their civilian protectors in the mountains, the final stage of a colonial war that, by the most conservative estimates, cost a quarter of a million Filipino lives.

Baguio City is better known today as a center of higher education. In the morning we went to visit the collections of one of the city's many universities, a clean and quiet room of artifacts staffed by a curator and student employee, but otherwise empty. Both were new on the job. The student, Divine, had started only that morning. After a few minutes talking to Carleen, she invited us to stay at her family's guest house in Sagada, four hours further into the mountains. Carleen said we would be delighted. 'Okay, *ate*,' Divine said, using a

Tagalog appellation reserved for a big sister or older woman. She picked up her phone. ‘I’ll tell them you’re coming. Is it all right to call you *ate*?’ We left the collection with new travel plans and began climbing a long set of stairs back toward the city center. Baguio is not quite a mile above the coast, but as we climbed, I was suddenly breathless. Altitude sickness had struck, as it always did in my experience, a day or so after rapid ascent, a gentle reminder of our remoteness from the seas that are the country’s connective tissue. I sat down on the steps and waited for it to pass, enjoying the mild perturbation of the self in unnatural motion. The staircase was inlaid with terraced gardens – there were plots of lemongrass, ginger, aloe vera and sweetgrass – in miniature, museum-like imitation of the infinitely grand terraces of Ifugao. The sweetgrass quivered in the breeze. In a few minutes, I was feeling better.

Joanna Cariño had friendly eyes and kept tea bags in her purse. She had just come from a meeting with her Ibaloi clan in Burnham Park, an eighty-one-acre bouquet of pink showers and Benguet pines spread out in sharp sunlight many stories beneath us. We were in a sunroom on the twelfth floor of a new high-rise hotel on the southern edge of Baguio. Somewhere downtown a fire was burning and shot a pillar of dark smoke into the sky. As we talked, the fire was slowly extinguished and the dark smoke lightened, until after two hours it was cloud-colored and became a cloud. More or less all the land we could see had once belonged to Joanna’s great-grandfather, an Ibaloi plutocrat and heroic router of Spanish forces, until his holdings were appropriated for an American army base. He took his case all the way to the US Supreme Court and won – posthumously. ‘A historic decision which he never lived to see,’ Joanna said. On the village green beneath us, somewhere between the children’s park and the orchidarium, stood a monument to Mateo Cariño.

Joanna was a router, too. Back in Quezon City, I’d asked an activist named Beverly Longid about the legacy of Cordilleran resistance bound up in this woman who never married and had no children of her own. ‘We call her The Mother,’ Beverly said. Then she laughed.

‘The Mother of Us All!’ The only surviving founder of the Cordillera Peoples Alliance, an autonomous federation of Indigenous communities, Joanna was radicalized over a decade-long struggle against four massive hydroelectric dams, collectively known as the Chico River Dam, planned for the Cordillera by former kleptocrat president Ferdinand Marcos and his international World Bank funders. She first learned of the dam project as a student activist in the seventies, two years after she was detained, tortured and sent to a military prison during Marcos’s martial law regime.

By the second year of her detention, Joanna was used to the drudgery of life at Camp Olivas and awaited only change. One day it arrived. ‘The military came into the camp with a large group of people. I remember thinking there must have been a hundred tribes represented. I say tribes because some were wearing nothing but G-strings made out of bark. There were men, women and children, all of them taken into the camp, and there weren’t enough facilities to house them all so they were just there in the yard, a large, uncovered, fenced-in area where they lived and slept. I had never seen anything like it before. I realized they were Igorots from deep in the mountains.’

Joanna spoke slowly, her fingers interlaced. ‘When we saw them at meals, we asked these people what they were all about. They said there was a struggle against the Chico River Dam. We’d never heard of any dam – we’d been in prison since ’74. The tribesmen explained they were resisting the dam project and in fact had torn down some facilities owned by the National Power Corporation, for which the government had gone on a punitive spree, arresting every Igorot they could find. I only learned about it because all these tribespeople were brought to the prison where I was being held. It was winter, and shortly after their arrival, I was released. I came back to Baguio, I went back to school – but everything had changed for me. I had learned about the Chico Dam.’

Had it been completed, the Chico Dam would have been the largest in Asia, displacing tens of thousands of people and demolishing local economies and food supplies to bring a thousand megawatts of power to Metro Manila. The struggle against the dam which

Joanna joined on her release united – for the first time – distant and remote communities up and down the Chico River into a single, unprecedented block of resistance, culminating in a major victory for a philosophy of self-determination and land use that was then becoming known in political discourse as Indigenous rights. Joanna has not stopped fighting since, although her mission sometimes gets her into trouble. Most recently, in 2018, the Duterte administration’s Philippine National Police Intelligence Group published a list of the country’s known active terrorists. There were 656 names and ‘Joanna Cariño’ was one of them.

Such lists are intended to vilify organizers and link them, however flimsily, to Islamic extremists or the New People’s Army, the militant wing of the Communist Party of the Philippines, understood by the government (and its hulking ally in the war on terror, the United States) to be a terrorist group. It was not Joanna’s first or second or even tenth game of red-tag. She does not bother to count the number of times her life has been threatened and she has known many martyrs to the cause of Cordilleran self-determination. In 1987, a fellow tribal leader named Ama Daniel Ngayaan was abducted and killed in Cagaluan Gate, a garrison town at the Cordilleran crossroads of Kalinga known for military murders. Killings have risen again under Duterte; the year the list was published at least thirty defenders of land and resources were murdered.

Joanna may have been saved from the fate visited upon these others thanks to the presence of another name on the list: Victoria Tauli-Corpuz. At the time of its publication, Tauli-Corpuz, a Philippine citizen of Kankana-ey Igorot background, was the Special Rapporteur on the Rights of Indigenous People for the United Nations, making her perhaps the most recognizable Indigenous person in the world. Her presence on a list of terrorists was too ridiculous even for an international press accustomed to normalizing the tactics of dictators. The list became a laughing stock. Before long, it was reduced to eight names. Joanna’s was gone.

Carleen and I took an afternoon bus from Baguio and pulled into Sagada at twilight. The town was silent. It took us a while to find the guest house Divine's grandparents owned. We walked a mile or so along a dark cornice. Most shops and restaurants were shuttered for the off season and we passed the large building several times before we realized we'd found it, set back deep in an overgrown yard between two half-constructed homes and behind a shack where some chickens were sleeping. There were no signs of occupancy. A young girl answered the front door and led us into a darkened banquet hall. It emerged that Divine's grandparents had left the inn days ago for a campsite further into the mountains. They had put three relatives in charge, the oldest of whom was fifteen. She was helping her younger siblings finish their homework by the light of a single lamp in the banquet-hall kitchen. She paused to give us a room key and have us sign the guestbook. We were the first visitors of the year.

In the morning, a devout Christian named Patrick said he would take us to see the hanging coffins in the Valley of Echoes. Like most Sagadans, Patrick was of Applai, or northern Kankana-ey, background. We met him outside the town hall and straightaway he began to explain the difference between Kankana-ey and Kankanay, its sister tongue, two languages occupying the same mountain fastnesses. I couldn't grasp the subtle vowel distinctions. Eventually, he gave up. To change the subject, I pointed to the large sign that hung from the town hall:

We strongly denounce all forms of
Violence, Terrorism, and Atrocities
that disrupt Peace and Development
in our Community

Patrick shrugged. The sign was less interesting to him, and the product of long suffering. Even before Duterte's drug war, the stagnant conflict between government-aligned forces and the New People's Army, often taking the form of paramilitary terror campaigns

against Igorot communities, had resulted in the deaths of some 40,000 civilians in Luzon and led to bloody scenes in Sagada's past, including a marketplace shootout in 1988 in which two children died. Peace pacts, a social technology used for centuries among several Igorot societies, became important methods of demilitarizing mountain towns in the eighties and nineties. One Sagadan activist described peace pacts to me as a process that requires no special devices beyond a boundless capacity for talking. Debates last late into the night. Finally, an agreement is reached between two or more groups: a zone of self-governance is conjured, one that might include curfews, a ban on alcohol or general disarmament. The town hall's modest pronouncement belied the fact that Sagada is a pioneer peace zone of the Cordillera.

Patrick, Carleen and I waited for a while to see if there would be any other tourists that day. It was always quiet in the off season, Patrick said. In the summer, he took large groups out to the coffins. Not many visitors were around now. Only Fede, an Italian osteopath, asked to join us. Fede was one of those solo travelers undisturbed by memory or knowledge. He spent no more than six hours in any one place and slept entirely on buses, boats and airplanes so as to maximize his intake of sights per hour, or per minute, a furious vacation assemblage. He confessed to knowing little about the Cordillera. He had slept fitfully for an hour or two on the night bus from Manila in order to arrive in Sagada in time to join a morning tour. He would go on to Banaue and the famous rice terraces, then back to Manila on another overnight. Then somewhere south – he hadn't decided exactly where – to beaches, islands, palms. He had seen most of the countries in Southeast Asia in this breakneck manner. He took out his phone and opened Facebook. In the foreground of all of his vacation photos (Varanasi, Angkor Wat, Vientiane) he was performing a perfect handstand.

As the four of us set out from the municipal square, the rising sun began to dispel the mists clinging to the pines. Before long, we were sweating. We passed a basketball court and moved onto a dirt path

that rose onto a hillside of wild flowers and tombstones. Echo Valley was just beneath the Christian graveyard, down a steep rock face into which stairs had been cut for hikers longer-limbed than any present. Halfway down the steps, Patrick gestured to the overlook that gave the place its name. If you called out in Tagalog, it was said, an echo would come back in English. Patrick, whose mother tongue was neither of these, didn't think much of this story, and none of us shouted out anything. The floor of the valley was cool and green, filled with Benguet pines and sparse undergrowth. Against a cliffside of limestone schist, the famous hanging coffins were strung on ropes and rusted wires.

They seemed both mythic and mundane. The coffins floated impossibly against the cliff and yet the family names of the dead were written across their fronts matter-of-factly, as though on crates of fruit: Lawagan, Bomit-Og, Sumbao. The easiest way to date the coffins was by their length, since the tradition of interring the dead in a fetal position was gradually replaced by the Christian habit of laying the body flat. The newest coffins, adorned with wooden crosses, showed the extension of the religious syncretism of Sagada, through which the dead themselves had steadily climbed the hillside to the cemetery above us. The last coffin was raised decades ago, Patrick said.

We walked on through a second valley toward Sumaguing Cave, another tourist attraction, passing more grottos of coffins tucked between vegetable patches. There were no tricycles and barely any traffic. The cave is high in the mountains and at the same time is the deepest in the Philippines, descending 500 feet from its mouth. Its great open maw was filled with ferny undergrowth, foliage which the cave seemed to be in the process of eating. Patrick climbed down into the darkness with the fluency of a stone falling down a well.

The first chamber was an abyss of openness where earth should be; a cathedral would have fit comfortably inside it. The roof was shrouded in darkness, so high that our flashlights illuminated almost nothing. Patrick had a propane gas lantern and an industrial torch, but even the latter was dimmed by the distance, illuminating

just enough to reveal that we were climbing beneath a teeming underworld of bats. As soon as we saw them, collected in several giant oblong hives from one end of the cave to the other, their sounds – a faint squeaky static I'd half imagined were shoes on wet stone echoing from below us – became legible, as did the smell of their droppings on the rocks.

With the lantern, Patrick drew our attention to a sheer limestone wall rendered curtain-like with columnar glyphs. He had been understandably subdued around the hanging coffins, but he was voluble when it came to the time-honored tour guide practice of identifying obscene figures in curvaceous water-worn sandstone. The nicknames for the rock formations – 'King's Curtain', 'The Princess' – referenced a complicated mythology of sexual misadventure, which Patrick explained in a fast, droll monotone. As a good devout Catholic, he took great pleasure in prurience and sin. The rude jokes could not dispel the sublimity of the cave, however, nor its testament to mountains as living things that can melt or shoot fire into the air. Rock may appear solid and perpetual, the cave seemed to say, but it is in a constant state of mostly imperceptible flux. Just as the limestone cliffs above had been plant-covered but dissolute, rich in granulated distinctions to which the dead were battened, so was the sandstone in the cave wet, even glutinous, under the steady drip and rush of buried aquifers, creamy syrups of stone folded and refolded, made supple by an eternity of rain flow. Rock becomes dust, shard, mud, dirt and – under different pressures – rock again.

We came to the shore of an underground ocean. It was the aquifer beyond which the cave was impassable. A wide hole in the floor gave way to a lapping underground lake that disappeared into darkness. Our beachhead was a wedge-shaped room of smooth gray stone. At the waterline, Patrick turned his flashlight on a scattershot of copepods in the flesh-like wall, his personal proof of eternal return. The fossils were lacquered by sunless damp spray. 'One day Sagada will be underwater,' he said. 'Like it was here. How many islands do you think are in the Philippines?'

I couldn't remember. 'Seven thousand?'

'Seven thousand, five hundred and ninety. Many were once underwater. They will be underwater again when the water rises. These fossils, maybe they're from the time of Noah.'

Like the mirror world below us, where everything is reflected darkly, tree to tree and shade to shade, on the underside of Luzon are not rice terraces but marine terraces: late-Holocene shelves of coral, rock and weed. They are finely notched and suggest to archaeoseismologists that western Luzon was inundated by an extreme wave event about a thousand years ago, which may have submerged mountain passes in a meters-high tsunami. The tsunami in Luzon's future is predicted to follow a similar megathrust rupture, one that will steadily inundate the western coast. Perhaps even the hanging coffins of Sagada will find themselves underwater.

It was time to start the hour-long climb out of the cave. But first, Fede found a laminate stretch of flat sandstone on the far side of a pool of water and tucked in his shirt. Patrick raised the camera phone. Carleen and I applauded the perfect handstand.

Saint Vincent's convent was gated, its entrance tucked into a mountain switchback guarded by plump rosettes of aloe. There were no other visitors that evening, although the exhibits resounded with the cries, happy and otherwise, of the children at the Catholic school that shared the convent grounds. The Bontoc Museum, built in the low, long style of an Ifugao house, was founded during the years of American administration by a Belgian nun named Sister Basil Gekiere. Sister Basil adored Santa Teresita, had a girlhood love who was killed in the Great War, and hoped to gather together in her museum some of the instruments of Bontoc culture – rattan fish traps, rain shades, snail-collecting baskets – that might otherwise disappear into the hands of American collectors.

In the outdoor garden behind the museum were several other Bontoc-style houses made of wood and thatched palm. A nun was clearing water out of a sunken firepit with a green plastic bucket.

It was Sister Emie's first year parished in Bontoc. There was one other nun who worked at the library but she had the day off. It got lonely. Emie smoked out the huts each week to fend against wood-eating insects and temper the walls. 'That is why the insides of Igorot houses are always black,' she explained. One by one, we stooped down low to get inside the model *ato*, a longhouse where Bontoc elders would meet to deliberate village matters. The house was warm and wallpapered in soot.

In the museum next door, we'd seen an American administrator's photograph of a Bontoc innocent of brick or concrete. The Chico River ran brightly through the village of thatch and sunlight like a silver thread. Such photographs, however lovely, were often intended to produce anthropological truths outside history, clarifying the difference between 'primitive' peoples and their colonial rulers. The recovery has been slow. Tribal Filipinos from Luzon appeared in the nightmarish human zoos of the early twentieth century, in pens of exotica at Coney Island and in the continent-touring Louisiana Purchase Exposition. In 1913, a group of Igorots was found wandering the streets of Ghent. They complained that the circus master who hired them had starved them and stolen their wages. The American embassy in Belgium arranged to send them back to Luzon. The following year, the US-backed Philippine Assembly finally outlawed, together with many other forms of slavery, the export of tribesmen by the Barnums and Baileys of the world.

We followed Emie to the one-room library. She always had to keep watch for the bats that liked to congregate on the doorsills. 'They make the floor so dirty,' she said. 'I really can't stand it.' She kept a large black headlamp on her desk to help with the work, which took her out of doors late into the night. She liked Bontoc well enough, but the work was hard. She was used to Baguio City, where she had spent her whole life before God's will sent her up into the mountains. 'But this is what we must do,' she said. 'Although at my age, my back, well, it hurts. We must preserve this knowledge and show children what life here was like, the Indigenous culture.'

She began pulling books from the shelves. Although the library was small, it was as well stocked as any I'd seen in Baguio or Manila, with long-out-of-print ethnographies and collections of folklore.

'Scott – you know Scott?' An entire shelf of the library was devoted to the American missionary-turned-historian William Henry Scott.

I said we had visited his grave in the cemetery in Sagada.

'All these foreigners,' Emie said. 'They took such acute interest in our peoples. We must rediscover our heritage from them. We are even at risk of forgetting our recent history – the Chico Dam resistance, the fight against the mines, all our local history.' In apparent contradiction to this lament, she began to enumerate some of the famous and obscure events of the last century, a century that was filled with resistance and refusal by the peoples of the Cordillera in their dealings with European, American and finally US-backed endemic regimes. Many of the stories deal with resource and human extraction, from Indigenous slave raids and Spanish goldlust to the hydroelectric fantasias of modern statecraft. Some are preserved in songs or local histories. A few were indeed recorded by interested scholars from the US and Europe. But it is rare for colonial archives to present culture as an active and conscious project, rather than something eternal and unchanging, to be preserved under glass. None of the events were described in the museum next door.

Emie walked us to the door and down the garden path to the wrought-iron gate. The children were gone and we were alone. 'Well, goodbye,' she said, locking Saint Vincent's behind us. 'I wish you luck in your travels. I don't know when we will meet again.' As we were walking away, she called us back. 'Don't miss this flower.' She pointed through the bars to a two-story fern all over which were batted bright purple dendrobiums. 'Photograph it. I use coffee grounds in its pot and, as you can see, the results speak for themselves.'

In the 1970s, women from Mainit, a village outside Bontoc, climbed a muddy mountainside to bare their breasts before the engineers of Benguet Corporation. The mining company intended to displace

a stretch of the Chico River, destroying the area's terraces, which for centuries have relied on elaborate systems of irrigation based on the natural flow of mountain streams. Bared breasts are believed to hex unwanted strangers. In their chants, some of which are still heard at rallies today, the Mainit women dared the men to harm 'the womb where they came from', gesturing to the young men from local villages the firm had hired to dig trenches and pour concrete.

Another chant, in its entirety, went like this:

*Uray maid armas mi
armas mi nan ima mi
estaʔwes, esta-gaʔwis
ikmer mi snan fitfitli, fitfitlin na raraki
estaʔwes, esta-gaʔwis!*

We may not be armed
but our hands are our weapons
We use our bare hands to squeeze balls
the balls of men!

The local workers were petrified; the engineers fled. Afterward, the Mainit women raided their camp. They took the supplies to the town center and left everything in a pile outside the company office. Nothing was stolen. The workers' food was abandoned to rot. It wasn't any foreign historian I learned the story from, rather Joanna Cariño and other women who have remade the Cordillera in their image. The current president of the Philippines, who has said that all women are weak, has never once showed his face in Bontoc.

We hired a tricycle to drive us to the rice terraces of Maligcong. It was hard going on this motorized rickshaw, and when we came to steep inclines we had to get out and walk while the driver went ahead. After half an hour, we were somewhere high above Bontoc in a court of corrugated metal houses on foundations of stone.

Embarrassed and concerned for his Honda's engine, Carleen paid the driver ten times the cost of a journey in town. He waved and drove off, raising a cloud of dry-season dust. A gravel path led us out to the gallery of terraces.

Maligcong is not a tourist destination like Banaue or Batad – both are famous attractions found in neighboring Ifugao – but it is one of nearly twenty lesser-known terraces in Mountain Province, the approximate center of the Cordillera. Each one is an amphitheatrical marvel of stone engineering, and looking across Maligcong it was hard to believe any terrace system in the world, much less the region, could match it in size, or that its builders had hidden such feats from the Spanish, there being no recorded encounter with these massive stone structures until the nineteenth century. I was glad for our solitude as the town fell away beneath us and we gained altitude, walking along the stone walls through fallow fields and newly planted paddies. As we walked, the ponds, which reflect the hills when you are near them, became glassier, then white with sky. Purple swallows chased mosquitoes above the water.

Rice terraces are humanity's oldest effort to overcome the tyranny of the slope. They are the only wonders of antiquity that still serve their original purpose: to grow rice in paddies suspended in air, in defiance of a mountain's erosional claims. In the Cordillera, they occupy ground so steep it often can't be walked up. Each terrace system was moreover built, as several Filipino writers, including Adrian Cristobal, have noted, by a free people under no central authority. 'No tribal Khufu, or Shih Huang Ti fearful of mortality and foreign invaders, called on the Ifugaos to build this great edifice. We can only surmise that they looked at the hills and decided in common to eke their livelihood step after step, not conscious that at the end of it, they would have built an enduring edifice to their needs, a stately mansion to their collective soil.'

A few women were out in the heat weeding their walls, the highest of which were as mossy and demanding as an old city bastion. Some family plots were abandoned, and there were sections where

several contiguous levels of wall were so overgrown with ferns and grasses they looked from a distance like a cascading green waterfall erupting, at the bottom of a terrace, into leafy mist. The weeders worked under parasols, hats and headscarves, and greeted us when we passed. It was too hot to stand around and talk. A few women hummed as they worked but none was singing the famous *hudhud*, or songs of harvest, Ifugao's epic tradition, passed down from woman to woman, harvester to harvester.

Carleen suggested we climb the hill for a photo. We walked along the path between plots grading upward, toward the managed forests that are found above all of Luzon's rice terraces. The signature landscape feature in the central Cordillera, the terraces are often described as a testament of human achievement on a vast and pre-historic scale. Their age, however, is the subject of modern controversy. It now seems likely the terraces are a form of 'escape agriculture' developed in response to colonial incursions, a fact that makes their existence all the more incredible. They were probably built quickly, over decades or centuries rather than millennia, amid the onslaught of attempted Spanish conquest, and were produced either by long-dormant cultural knowledge or by sudden technological innovation. To walk even a 'minor' terrace system like Maligcong's is therefore to be assailed by immensities that may emerge from life on the margins of state capture. By *Britannica's* count, there are 12,500 miles of terraced wall in the Banaue system alone, enough to wrap halfway around the world.

Nor are the terraces fully described by the inert stones that form them. The larger system, a circuit of self-sufficiency, is not so easy for outsiders to recognize. We do not clearly see the engineered forests mitigating erosion and rain flow, or the partly subterranean irrigation systems, both of which harmonize rice farming with a mountain habitat. I tried to recalibrate my sense of these objects as we climbed. From our high vantage, the terraces looked like a topographical map, muddily contoured and, because the pools were brilliantly reflective of the vault of sky above us, blanketed in

stained glass. It was the highest point we would reach in our travels in northern Luzon, and the rose window that now bloomed beneath us, camed in stone and filled with undercloud, seemed an appropriate reward. Sure enough, each curving line of shingle stonework was alive with grasses and wildflowers, and stream water was carried down the hillside by elegant waterfalls and a system of rubber hoses on wooden posts. Although the stone itself is the visual showstopper, the combination of forest management and irrigation – the latter once achieved by bamboo aqueducts – makes Luzon’s terracing a true wonder, the world’s largest monument to the spontaneous civilizational genius born of refusal.

We made our way back to the center of the hillside’s amphitheater of terraces, to Fang-orao and Favarey, the original settlements of Maligcong. The three villages shared one midwife, one cement schoolhouse and one jeepney stop.

The stop was a level clearing where workmen sat on bags of cement, waiting for the afternoon jeepney to town. We sat in the heat and waited, too. The driver was late and, one by one, the men walked home for lunch. We were alone. We could hear kids playing in the schoolyard on a plateau above us. The schoolteacher came down the steps. His name was Matthew. His family had two small terraces, he said, one on each side of Fang-orao. This turned out to be the most common arrangement in the village. One hillside’s terraces had already been harvested in December, he said. The other would be planted in March and harvested in October, so that each family had two different, staggered stages of planting or harvest. In this way, families defended themselves against droughts, floods and other seasonal disasters.

When we said we were visiting from Germany, Matthew became exercised. The most famous son of Maligcong was a self-taught karate champion who settled there years ago. Had we ever heard of Julian Chees? He came back to the village every year to donate the money he earned from competitions and from teaching in his dojo. During his most recent visit, he had paid the treatment costs for

every kidney patient in the dialysis ward in Bontoc and funded the construction of the kindergarten whose beneficiaries we could hear up on the bluff.

‘I’m not sure,’ I said. ‘When was he champion?’

‘In 1991.’

Matthew wasn’t insulted we didn’t know the name Julian Chees. The distance between us was now clarified and he tried to show us there were no hard feelings. ‘Well, you know, he’s not as famous as . . . as . . .’

He trailed off as he tried to think of a celebrity an awareness of whom we might share. None came to mind. Half a minute passed in silence. The sun beat down. I began to ask about the terraces on the hill to our north when he came to life again: ‘— as Adolf Hitler!’

Matthew was one of five teachers working at the school, a post that paid so little he descended into Bontoc to work as a tricycle driver three days a week. He had gone to school in Baguio but found it crowded and dirty. Young people like him do not often come home to live, he said, and more and more of the terraces were going unplanted each year for lack of laborers. Every face in the crowds of Baguio City, he said, came from a village like this one. ‘They’re looking for work,’ he said. ‘Here we have only farming.’

It would be good to have some kind of revitalization project, Matthew went on, some support to keep the marvel going for another century. But even the local elections in Maligcong had been delayed for lack of funds. They were waiting, he said with a chuckle, for Duterte to decide if and when they would be deserving of elections, and until then they would carry on leaderless as before. Then he asked how we’d gotten here, since he knew we hadn’t come by the morning jeepney. We told him about the Taal eruption, the bus from Baguio to Sagada, the other bus to Bontoc and finally our tricycle ride up the mountainside to Maligcong. He blew air through his nostrils. ‘You paid too much,’ he said. ‘But it is a hard, hard ride.’ ■